DOCUMENT RESUME

ED 098 922 IR 001 283

AUTHOR Palmer, Richard
TITLE TWXIL: TWX Interlibrary Loan Network.
INSTITUTION Ohio State Library, Columbus.
PUB DATE 74
NOTE 20p.

EDRS PRICE MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS College Libraries; Information Services; *Interlibrary Loans; *Library Cooperation; *Library Networks; Library Reference Services; Program Descriptions; Program Evaluation; Public Libraries; State Libraries; *State Programs; Union Catalogs; University Libraries
IDENTIFIERS *Ohio; TWX

ABSTRACT

The Ohio State Library developed a TWX Interlibrary Loan (TWXIL) pilot project in 1971 in order to: (1) produce information that would be helpful in the design and operation of a reference and information network, and (2) produce improvements in library services and sharing of existing resources through the strengthening and limited extension of two existing interlibrary networks, and (3) improve interlibrary loan service through the state library. The state library and three large public libraries were connected by teletypewriters, and the state library had a computer terminal to interface with Ohio State University and the Ohio College Library Center. One of the three public libraries, Cleveland, was a communication link with seven other public and two academic libraries, four of which had a union catalog of adult nonfiction. Results of the pilot project were encouraging. Ninety percent of library requests were filled within eight working days, and 11,518 transactions took place in the year July 1972 through June 1973. Some possibilities for future improvements included better report forms, wider instruction of librarians in the knowledge and use of the TWXIL system, increased communication between the cooperating organizations, cost sharing, inclusion of subject requests, and system expansion. (LS)

ED 098922

002

T W X I L

TWX Interlibrary Loan Network

A Report
by
Richard Palmer
Consultant for Network Design
State Library of Ohio

Edited, with Evaluation and Comment
by
A. J. Goldwyn
Professor
School of Library Science
Case Western Reserve University

1974

IR 001 283

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

INTRODUCTION

In 1968, the Blasingame Survey was published by the State Library of Ohio.* Among its recommendations were several relating to the improvement of communications between all public libraries, state agencies and the State Library, as well as to the improvement of State-wide reference service. As revised and sharpened in the Ohio Library Development Plan (OLDP, rev. 1974), these recommendations were subsumed as part of the implementation of a major Plan goal: Developing Adequate Network and Backstopping Capabilities. As expressed in the OLDP, its purpose was to help libraries to "adequately meet the mounting demands caused by Ohio's cultural industrial and economic growth." Network development was seen as supporting the reorganization of library resources "in such a way that while preserving the independence of each library, the goal of equal access to enriched library resources can be achieved."

In support of this goal, the State Library began at the end of 1971 a federally-funded project to operate an interlibrary loan teletype network in selected Ohio libraries. Its objectives were to produce information that would be helpful in the design and operation of a reference and information network, and to produce improvements in library services and sharing of existing resources through the strengthening and limited extension of two existing interlibrary networks, and the improvement of interlibrary loan service through the State Library.

---

* Ralph Blasingame, Survey of Ohio Libraries and State Library Services. A Report to the State Library Board. (Columbus, 1968.)

The TWX Interlibrary Loan (TWXIL) Network began operation in January 1972. Teletypewriters were installed at the Cleveland Public Library, the Public Library of Cincinnati and Hamilton County, the State Library, and the State Library Catalog Center. Computer terminals were installed at the State Library to interface with the Ohio State University Library's circulation system and with the Ohio College Library Center (OCLC). The Cleveland Public Library served as a communication link to the seven other public and two academic libraries in the Cleveland Area Interlibrary Network (CAIN). The holdings of four of these CAIN libraries (Cleveland Public Library, Cuyahoga County Public Library, East Cleveland Public Library, and Lakewood Public Library) are listed in the State Library Union Catalog. The Union Catalog acted as a switching center and referred interlibrary loan requests to the appropriate resource library. Since the Union Catalog is an author listing of adult non-fiction, only requests for adult non-fiction were accepted into the TWXIL network for referral to the resource libraries. Requests from any library in the state could be referred to Cincinnati or to any of the four listed CAIN libraries.

Two elements of the TWXIL network expedited handling of requests. One was the arrangement by which the union catalog staff referred a request to one of the network resource libraries, which in turn sent the requested item directly to the borrowing library. The other element was rapid communication between network outlets which was made possible by teletypewriters and computer terminals. Extension of teletype communication and inclusion of other major public libraries in TWXIL will further improve this service.

The interlibrary loan service of the State Library is an important part of network service. The State Library in 1973 loaned 32,214 items

to libraries of all types. Regional network resource libraries which could not fill requests called on the State Library. If the State Library could not supply the materials needed, the request was referred into the TWXIL network. Through an arrangement with The Ohio State University Libraries, the State Library also made available to other libraries photocopies of periodicals not in the State Library's own collection.

During the experimental period, the Ohio Valley Area Libraries (OVAL), which in 1973 became the first Area Library Service Organization (ALSO), was included in the network on a trial basis. Requests from OVAL accounting for about one-fourth of the total number of requests referred into the network, could be referred to Cincinnati, the listed CAIN libraries, or, if there were no listings in the Union Catalog, to the CAIN network (on the chance that one of the unlisted libraries might own the item), to the Ohio State University Libraries, and to OCLC, as indicated above.

If a requested item was not available at the first location queried, other owning libraries were contacted. A single request might be referred to as many as four locations.

RESULTS

Relative success, which was considerable, is illustrated in the following sections on "Record Keeping" and "Network Usage and Referral Patterns." In summary, it might be emphasized that the time needed to fill a library's request was often reduced by three or more days. Almost 90% of requests were filled within 8 working days. And, as shown in Table V, fewer than 2% of the requests took as much as two weeks to fill. Comments on the long-range implications of TWXIL appear in the "Evaluation and Comment" which conclude this report.

RECORD KEEPING

A copy of the form shown in Figure 1 was attached to each request referred from the Union Catalog. This form was used to record the status of a request from the time it entered the network until its final status was reported to the requesting library. Figure 2 shows a form as it might be filled in to indicate that: the request was received at the State Library on March 6, 1973; the Union Catalog shows that Cincinnati, Cuyahoga County, and East Cleveland Public Libraries own the item; the request was referred on March 7 to Cincinnati which reported the item in use on March 8; the request was referred on March 9 to Cuyahoga County which reported on March 12 that it had sent the requested item; on March 12 the Union Catalog returned the interlibrary loan form to the requesting library indicating that Cuyahoga County had sent the requested book.

Figure 3 shows the TWXIL Monthly Report Form which was used by the Union Catalog to record the number of network transactions. A total of the columns under "NETWORK" and "NON-NETWORK" will yield the total number of requests referred into the network. The columns under "RE-REFERRALS" represent transactions involving requests which were not available at the first (or second, or third) location tried. Figure 4 shows the form used to record the results of the use of the OSU terminal.

NETWORK USAGE AND REFERRAL PATTERN

A tabulation of figures from the Monthly Report Form for the period from July 1, 1972 to June 30, 1973 shows the following activity:

TABLE I

Number of Requests and Transaction

July 1, 1972 to June 30, 1973

Requests referred into the network	4,756
Re-referrals into the network	2,016
Total referrals into the network	6,772
Requests not referred into the network	4,746
Total number of requests	9,502
Total number of transactions	11,518

Table II indicates to what resource libraries these requests were referred.

TABLE II

Referral Pattern of Requests

Number of initial referrals to	
Cincinnati	1879
Cleveland	1975
CAIN	668
OSU	234
Total	4756
Requests not referred into the network	
Listed in the Union Catalog	1674
Not listed in the Union Catalog	3072
Total	4746

(cont'd)

TABLE II (cont'd)

Transaction re-referred to	
Cincinnati	209
Cleveland	403
CAIN	62
OSU	758
OCLC	584
Total	2016

Using the forms (Figure 1) attached to all requests, Robert Reich and Arnold Reisman, members of the Operations Research Department at Case Western Reserve University, analyzed completed requests processed between July 1, 1972 and June 30, 1973 to determine: (1) the degree of success in filling requests, (2) the reasons given for unfilled requests, and (3) the number of days required to process filled requests.*

Table III shows the degree of success of each of the resource libraries in filling requests referred to them. OSU and OCLC are not included because of inadequate data.

---

* These researchers found that some items of information were missing from some of the forms. For this reason, numeric data given in one table may not agree with similar data in another table.

TABLE III

Degree of success in filling requests

RESOURCE LIBRARY	Number of Referrals	Number filled	Percentage filled
CAIN	1015	336	33.1%
Cincinnati	2083	1059	50.8%
Cleveland	2065	963	46.6%
Cuyahoga County	406	257	63.3%
East Cleveland	132	67	50.7%
Lakewood	157	89	56.6%

In this Table, the number of referrals does not equal the number of requests. Some of the requests were referred to more than one library. This means that the number of referrals is considerable higher than the number of requests. Thus the Table shows the degree of success of each of the resource libraries in filling requests referred to them, but it does not show the actual degree of success, or fill rate, for the network. A total of 4522 requests were referred to these libraries and 2771 of them were filled. This produces a fill rate of 61.3%.

The actual fill rate for the network was somewhat higher than indicated because of the requests that OSU was able to fill. However, the exact number is not available because of incomplete information on the TWXIL forms (Fig. 1) regarding requests referred to O.S.U. Figures taken from the form shown in Figure 4 for a different period of time indicate that of the 364 requests referred to O.S.U. between June and October 1973,74, or 20.3%, were available.

TABLE IV

Reasons for unfilled requests

REASON	CINCINNATI	CLEVELAND	TOTAL	PERCENTAGE
In use	649	279	928	57.1%
Non-circulating	317	304	621	38.2%
Not owned	20	40	60	3.7%
Other	0	16	16	1.0%
Total	986	639	1625	100.0%

Table IV shows that by far the most frequently given reason for unfilled requests is that the requested item was in use at the resource library. Somewhat more than a third of the unfilled requests were for non-circulating materials. In a relatively small number of instances, the Union Catalog and the Resource Library did not agree. That is, the Union Catalog showed that the Resource Library owned the item, but the library reported that it did not. Other reasons reported were "Too New", "In Demand", and "Missing." This experience is generally in line with usual ILL percentages of satisfaction of their requests.

The speed with which requests were filled is shown in Table V. This table shows that the highest number of requests were filled on the sixth, seventh, and eighth days, and that after eight days, nearly 90% of the requests that would eventually be filled has been filled. This is especially interesting in view of the fact that several organizations might be involved in the transaction, and considering also that one or two non-working days were probably part of the total shown. The longest period needed to fill a request was 55 days. This was, of course, an unusual case. Fewer than 2% of the requests took two weeks or more to fill.

TABLE V

ELAPSED TIME FOR FILLED REQUESTS

Day	Number filled on nth day	Number filled by nth day	Percentage filled by nth day
1	1	1	.04%
2	26	27	.96%
3	373	400	14.17%
4	365	765	27.11%
5	382	1147	37.10%
6	490	1637	58.01%
7	466	2103	74.52%
8	425	2528	89.58%
9	114	2642	93.62%
10-13	131	2773	98.26%
14-17	23	2796	99.08%
18-21	20	2816	99.79%
22+	6	2822	100.00%

EVALUATION AND COMMENT

The summary and review of activity in TWXIL which forms the body of this report, together with certain observations made of its operation both during the organizational period and later, suggest various comments and recommendations for future planning. Such statements, which appear below, were in most cases echoed (sometimes very strongly) by a selected group of participating librarians (directors and/or persons in charge of ILL) interviewed toward the end of the reporting period.

1. As clearly indicated in the preceding report, hindsight has revealed certain inadequacies in the various report forms. This is usually the case, particularly with a new system: this is the reason that TWXIL was designed as a pilot project, and the deficiencies in data-gathering are not as crucial as the report might make them sound. Statistical manipulations are less important in a project like this than participant satisfaction which was, as indicated below, ample.

On the other hand, redesign of the reporting and track-keeping forms would accomplish two important results: first, making statistical summary easier and more meaningful; and second, making possible the prompt reporting of system function (referrals, etc.) to requesting libraries explaining the reason(s) for any delay.

2. A recurrent theme, explicit or implicit in interviews, was the need for better public relations--not that TWXIL has had a bad press, it just hasn't had enough.

Comments from librarians not personally involved in the network (but whose libraries were light or medium suppliers) ranged from "Is TWXIL a cable hookup?" to "Is that the TWX between CWRU and the State Library Union Catalog?" Other respondents were just vague.

The significance of this reaction, or lack of it, is at least three-fold:

(a) The role of the State Library in designing and carrying out the experiment is not clearly recognized;

(b) The use of federal funding for substantial support is not understood;

(c) The move toward significant network development in support of OLDP goals, which TWXIL represents, is undervalued. --This aspect is of course important in (a), above, as well.

It is difficult to know how PR could have been better or more effective in this case. A number of notices in News from the State Library as well as major reporting in the State Library Review represent just about the limit to which space in these publications can be exploited. (Whether such publicity is seen or read by a majority of Ohio librarians and trustees is of course another question.) Perhaps because, except for OVAL, the orientation of the program was more technical, so to speak, than "popular," in the sense of offering visible service to the patron, it lacked the kind of appeal that would be remembered by librarian and user alike. Posters? Brochures? A booth or presentation (with striking visual showing referral routing, patron satisfaction, etc.) at OLA? Food for thought (to coin a phrase) for all LSCA programs.

3. The need for better communication within the membership of multi-county cooperatives became apparent. Sometimes lack of communication seemed to be a function of personality: in a single multi-county organization, for example, one librarian had given orders to bypass the TWXIL link to deal instead directly by mail with the Union Catalog, while another expressed complete satisfaction with the (same) TWXIL connection, and thought service "pretty good." The former respondent, by the way, felt that the connecting library through which his/hers had to deal was pumping requests into TWXIL "just to get business." The source of the request and the motive for this alleged activity were not quite clear.

It should be pointed out, however, that specific and favorable mention was made in interviews with representatives of MILO, COIN and OVAL* of the

---

* Three of the regional groups, representing 26 counties.

multi-county context of request processing.

4. Financing is a sore subject which I shall just glance at here: the high cost of ILL was often mentioned. But on the other hand, librarians at two of the larger libraries contacted felt that if necessary "some way" could be found locally to help support TWXIL or some successive arrangement like it. By such offers they meant a contribution toward TWX rental, providing them with a versatile tool useful for other purposes as well. Staffing was not mentioned as a problem, in the theoretical case.

Incidentally, the source of funding was a partial or complete mystery to several respondents, including the one at a very large source library. Admittedly, the person had been on the job only a short time. That situation may not be all bad: in the event of system malfunction, there is nowhere to direct recrimination!

5. The limitation to non-fiction adult titles has been something of a handicap. This is due, as is indicated in the main report, to the structure of the Union Catalog. But, as one respondent in an OVAL library pointed out, accurate specification of appropriate titles has always been a problem for inexperienced reference personnel in relatively remote or understaffed libraries. (Cleveland volunteered to do subject searches if "somebody" would pay for an experienced reference librarian's time.)

Recommendations based on the above observations and comments might include:

1. Redesign of request, routing, referral and report forms
2. Redoubling of efforts to obtain both initial and continuing exposure for State Library projects, whether LSCA-based or not
3. Maintaining awareness of internecine friction within multi-county cooperatives (or the potential for such), both to avoid damaging network support and to strengthen cooperatives themselves.

Consultants might be asked in crucial cases to evaluate whether trustees were a plus or a minus factor.

4. Explore variations on cost-sharing

5. Reconsider the possibility of subject requests

6. Arrange TWXIL access for every multi-county cooperative.

Finally, I would conclude with a strong affirmative statement reflecting both the consensus of the librarians and staff interviewed and my own opinion: that the complexities of organization and operation of this project were handled most ably, conscientiously and expeditiously by Mr. Palmer, who should be congratulated on his patience, perserverance, and proven success.

Bibliography

(Most of the following references are intended to fill out the Ohio context of network development; this is not intended in any sense to be a true bibliography of experimental network system design.)

Blasingame, Ralph. Survey of Ohio Libraries and State Library Services. With Appendix Volume(s). (Columbus, 1968).

Duggan, Maryann. "Library Network Analysis and Planning (LIB-NAT)." Journal of Library Automation, 2:157-175, September, 1969.

Goldwyn, A.J., and Edward Verhosek. A Study of Extra-Institutional Use of Libraries by Ohio Academic Personnel. (Cleveland, 1969).

Kuncaitis, Yadwiga, and A.J. Goldwyn. Comparative Study of the Cleveland and Columbus Union Catalogs. (Cleveland, 1967).

Meeting Information Needs in Ohio. (Columbus, n.d.). --A report on a TWX experiment and elements "that will assist in designing a reference and information network." Prepared for and published by the State Library.

Ohio Library Association and Ohio Library Trustees Association. The Ohio Library Development Plan. (Columbus, 1968. Revised 1974.).

FIGURE 1

TWXIL PROJECT

	OWNED	REFERRED	STATUS	DATE
NIL				
CAIN				
CINC				
CLEV				
CY				
ECPL				
LPL				
OSU				
OCLC				
OTHER				

Date rec'd at State Lib.	
Date notice sent to REQ.LIB.	

FIGURE 2

TWXIL PROJECT

	OWNED	REFERRED	STATUS	DATE
NIL				
CAIN				
CINC	✓	3/7/73	IN USE	3/8/73
CLEV				
CY	✓	3/9/73	SENT	3/12/73
ECPL	✓			
LPL				
OSU				
OCLC				
OTHER				

Date rec'd at State Lib.	3/6/73
Date notice sent tc REQ.LIB.	3/12/73

FIGURE 3 TWXIL Monthly Report Form 013

For the Month of _____

DATE	NETWORK						NON-NETWORK			RE-REFERRALS						TOTAL
	CLEV		CINC		CAIN	OSU	NIL	LISTED	TOTAL	CLEV	CINC	CAIN	OSU	OCLC	TOTAL	
	P	NP	P	NP												

FIGURE 4

OSU TERMINAL USE - TWXIL

020

For the month of _____

Date	Number of Titles Searched		Titles not Found		Titles Found but Not Available		Titles Borrowed	